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July 31, 2012

Ms. Elizabeth Kudarauskas
U.S. Environmental Protection Agency Region 1
5 Post Office Square, Suite 100
Mail Code OES-04-2
Boston, MA 02109-3912

Re: Reporting Requirement under Section 114 of the Clean Air Act; Sprague
Operating Resources LLC

Dear Beth:

Sprague Operating Resources LLC ("Sprague") received a Reporting Requirement on March 31, 2012 from US Environmental Protection Agency ("EPA") requiring Sprague to provide information related to its #6 oil and asphalt equipment at its New England Terminals. EPA directed Sprague to respond to the Reporting Requirement for the Searsport, Maine terminal by May 31, 2012. Sprague submitted that information to EPA on May 27, 2012. Sprague was asked to submit information addressing the remaining terminals in the New England states by July 31, 2012. This letter satisfies the second portion of the Reporting Requirement by providing the required information for the following Sprague terminals and products:

- Avery Lane (Newington), NH; asphalt
- Everett, MA; asphalt
- Providence, RI; #6 oil and asphalt
- Quincy, MA; #6 oil
- River Road (Newington), NH; #6 oil
- South Portland, ME; #6 oil and asphalt

Reporting Requirement – Part 1:

Part One of the Reporting Requirement instructs Sprague to provide the following information for the No. 6 oil and asphalt system at each of the above terminals:

1. Maximum daily, monthly and annual design throughput capacities for the facility with detailed description of how the maximum capacity was determined
2. Date of purchase and/or installation of each loading rack
3. Date each tank was put into service
4. Date each loading arm was put into service
5. Date any tank or loading rack was taken out of service

When determining the maximum throughput capacity for No. 6 oil and asphalt at each of the terminals, Sprague looked at limiting design factors, including: (1) vessel offloading, (2) rack loading and (3) any other facility-specific physical and operational design characteristics that would limit a terminal's #6 oil or asphalt operations. Vessel offloading operations at all Sprague terminals occur at dock facilities that are designed for and capable of berthing and discharging one vessel at a time. Every Sprague terminal in Region 1 stores multiple petroleum products that are received across the dock. In some Sprague locations, the dock serves to transfer non-petroleum products that are also stored at the terminal.

Because of the dependency on the single-service dock for products stored at the Sprague terminals, a pro rata methodology was derived for allocating dock availability for each product, including #6 oil and asphalt, in the terminal calculations attached. Based on this, the maximum vessel throughput was calculated for vessel offloading at each terminal. Product mix and demand profiles at each terminal vary significantly, however the methodology applied in these calculations are generally similar.

In the case of asphalt, which Sprague handles across the system and does not take title, volumes may be further constrained by the customers' (asphalt owners) limitations on their markets.

Daily and monthly throughput rack and dock capacities are provided in Attachment 1, with the major assumptions. This section also includes the balance of the information required for Part One of the Reporting Requirement including the dates of installation.

Reporting Requirement – Part 2:

Part Two of the Reporting Requirement instructs Sprague to provide the following information for the No. 6 oil and asphalt system for each of its Region 1 terminals:

List of each capital projects which involves purchase, storage, distribution or transportation of #6 oil and asphalt greater than \$100,000 since 1990 providing the following information:

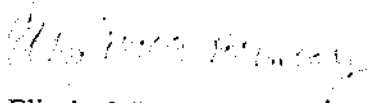
1. Project description
2. Purpose/function of the equipment
3. Cost and date of purchase
4. Date of installation
5. Date equipment began operating
6. Information pertaining to any emission control devices

This information is provided in Attachment 2. Note that for each of these projects, Sprague recorded the date of installation and first operation (items 4 and 5) as the same date since once the projects were completed, operation immediately commenced. In several cases, the date the terminal was acquired has been noted as the operational date.

Additionally, all of the #6 oil and asphalt tanks are equipped with fixed roofs; none of the #6 oil and asphalt tanks or systems has floating roofs or other emission control devices. Information is provided for Portsmouth, NH which was decommissioned May 2011 and New Bedford, MA which historically operated a #6 oil tank, which has since been permanently closed.

Please let me know if you have any comments or questions on this material. This information concludes the Reporting Order request of the EPA March 31, 2012 letter.

Regards,



Elizabeth Hernberg
Managing Director, HSE

cc: Mr. Paul Scoff, VP General Counsel, Sprague Operating Resources LLC
Mr. Burt Russell, VP Operations, Sprague Operating Resources LLC
Ms. Kristen Campbell, Manager HSE, Sprague Operating Resources LLC
Mr. Carl Dougherty, Director of Engineering, Sprague Operating Resources LLC

Attachment 1

Avery Lane - Reporting Requirement
Question 1 (b-c)

Tank #	Product	Safe-Fill (bbls)	Safe-Fill (gals)	Date in Asphalt Service
1	Asphalt	92828	3,898,776	2012
2	Asphalt	90473	2,895,136	2009
3	Asphalt	23,364	981,288	1996
4	Asphalt	146,117	6,136,914	2007
5	Asphalt	145,381	6,106,002	2009
7	Asphalt	6,670	280,140	1996
8	Asphalt	40,611	1,705,662	1996
9	Asphalt	41,057	1,724,394	1996
10	Asphalt	14,059	590,478	1996
12	Asphalt	21,949	921,858	1996
14	Asphalt	66,855	2,807,910	1996

Lane #	Product	# of Positions	Fill Rate (gal/min)	Date Operational/ In Asphalt Service
1 Asphalt		1	500	1996
2 Asphalt		1	500	1996

Everett - Reporting Requirement
Question 1 (b-c)

Tank #	Product	Safe-Fill (bbls)	Safe-Fill (gals)	Date Operational/ In Asphalt Service
17	Asphalt	1,056	44,352	2002
18	Asphalt	1,056	44,352	2002
148	Asphalt	72,682	3,052,644	2002
193	Asphalt	76,143	3,198,006	2002
194	Asphalt	76,005	3,192,210	2002
195	Asphalt	76,503	3,213,126	2005
1001	Asphalt	38,791	1,629,222	2002
1002	Asphalt	19,094	801,948	2002

Lane #	Product	# of Positions	Fill Rate (gal/min)	Date Operational/ In Asphalt Service
1 Asphalt		1	500	2002
2 Asphalt		1	500	2002
3 Asphalt		1	500	2002
4 Asphalt		1	500	2002
5 Asphalt		1	500	2002
6 Asphalt		1	500	2002
7 Asphalt		1	500	2002
8 Asphalt		1	500	2002

Note: Above dates in service are from the date of Sprague's ownership of the terminal. Sprague acquired the facility in 2002, and all tanks were in asphalt service at the time.

Providence - Reporting Requirement
Question 1 (b-c)

Tank #	Product	Safe-Fill (bbls)	Safe-Fill (gals)	Date Operational/ In #6 Oil Service	Date Operational/ In Asphalt Service
5 Asphalt		125,000	5,250,000	1968	1995
6 #6 Oil		142,000	5,964,000	1953	

Lane #	Product	# of Positions	Fill Rate (gal/min)	Date Operational/ In #6 Oil Service	Date Operational/ In Asphalt Service
1 #6 Oil		1	500	1949	
2 #6 Oil		1	Closed in 2010	1949	
3 #6 Oil		1	Closed in 2010	1949	
4 #6 Oil		1	Closed in 2010	1949	
5 #4 Oil		1	500	1949	
6 #4 Oil		1	Closed in 2006	1949	
1 Asphalt			400	1949	1995

Quincy - Reporting Requirement
Question 1 (b-c)

Tank #	Product	Safe-Fill (bbls)	Safe-Fill (gals)	Date Operational/ In #6 Oil Service	
11	#6 Oil	78,000	3,276,000		1995

Lane #	Product	# of Positions	Fill Rate (gal/min)	Date Operational/ In #6 Oil Service	
1	#4 Oil	1	375		1995
2	#6 Oil	1	375		1995

Note: Above dates in service are from the date of Sprague's ownership of the terminal. Sprague acquired the Quincy Terminal in 1995

River Road - Reporting Requirement
Question 1 (b-c)

Tank #	Product	Safe-Fill (bbls)	Safe-Fill (gals)	Date Operational/ In # 6 Oil Service	Date Operational/ In Asphalt Service
30001	#6 Oil, 1%	28,830	1,210,860	2009	1973
30002	#6 Oil, 2%	28,838	1,211,196	2009	1973
30003	#6 Oil, 1%	28,755	1,207,710	2009	1973
30004	#6 Oil, 2%	28,703	1,205,526	2009	1973

Lane #	Product	# of Positions	Fill Rate (gal/min)	Date Operational/ In # 6 Oil Service	Date Operational/ In Asphalt Service
1 #6 Oil		1	550	2009	1973
2 #6 Oil		1	550	2009	1973

South Portland - Reporting Requirement
Question 1 (b-c)

Tank #	Product	Safe-Fill (bbls)	Safe-Fill (gals)	Date Operational/ In # 6 Oil Service	Date Operational/ In Asphalt Service
7	6 Oil (0.5% sulfur)	90,485	3,800,370	2007	
201	Asphalt	14,062	590,604		1999
202	Asphalt	14,101	592,242		1999
208	Asphalt	108,423	4,553,766		1999
209	Asphalt	74,019	3,108,798		2001
215	Asphalt	24,630	1,034,460		1999
Lane #	Product	# of Positions	Fill Rate (gal/min)	Date Operational/ In # 6 Oil Service	Date Operational/ In Asphalt Service
1 Asphalt		1	250		1999
2 Asphalt		1	385		1999

Throughput Capacities Thousand Bbls/year

Avery Lane
Everett
Providence
Quincy
River Road
South Portland

Throughput Limits under Physical Design				Most Restricting Design Characteristic	
Rack		Dock		Boiler	
#6 Oil	Asphalt	#6 Oil	Asphalt	#6 Oil	Asphalt
	2.1		8.9		-
	7.4		6.9		-
2.7	1.4	3.7	2.0	2.7	1.4
3.4		2.9		2.9	-
2.0		0.8		0.8	-
8.6	1.9	2.9	1.2	2.9	1.2

Dock - Vessel Transfer Capacity

Dock Assumptions:

Avery Lane's dock can accommodate one vessel at a time and Sprague shares the dock with the adjacent propane facility, Sea-3. Based on annual activities, the two entities split the dock time roughly 50/50 (Sprague's asphalt share is 50.4% based on historic patterns), and this allocation is applied to the share of available hours per year for asphalt offloading in the figures below.

Discharge Rate:	3,000 Bbls/hr
Vessel Size	56,000 Bbls
Operations between Vessels:	
Vessel Berthing Time - Inbound	2 hrs
Vessel Mooring, Inspection and PIC Conference	2 hrs
Hose Disconnection, Secure equipment	2 hrs
Tide Restrictions - Slack Tide Sail Only	3 hrs
Total Time per Vessel Transfer	9 hrs
Vessel Discharge	18.7 hrs
Total Time per Vessel	27.7 hrs
Hours per Year	8,760 hrs
% Share of Asphalt Transfers	50.4%
Asphalt - Allocation of Hours	4,414 hrs
# Vessel Transfers per Year	160 vessels
Asphalt:	
Theoretical Annual Throughput	8,934,267 Bbls/yr
Theoretical Monthly Throughput	744,522 Bbls/mo
Theoretical Daily Throughput	24,477 Bbls/day

Rack - Loading Rack Capacity

Rack Assumptions:

The Avery Lane asphalt rack can operate two positions simultaneously at 400 gallons per minute, while the pump capacities are individually 500 gallons per minute. Due to seasonal demand, the terminal is open for business one half the year, and the hours below reflect these operating hours.

Asphalt

Maximum Discharge Rate per position:	400 Gals/min
Truck Capacity	6,000 Gals
Number of Truck Rack Positions	2
Truck Filling Operations	
Prepare for loading procedure at rack	10 minutes
Load product	15 minutes
Prepare transit	10 minutes
Total Time per Truck Fill (per rack)	0.6 hrs
Hours per Year	4,380 hrs
# Truck Fills per Year (all asphalt racks)	15,017 trucks
Theoretical Annual volume - Asphalt	2,145,306 Bbls/yr
Theoretical Monthly Throughput	178,776 Bbls/mo
Theoretical Daily Throughput	5,878 Bbls/day

Dock - Vessel Transfer Capacity

Dock Assumptions:

Sprague does not own or operate the dock at the Everett, Massachusetts terminal but relies on ExxonMobil to offload vessels for Sprague at their dock. By contract, ExxonMobil has the right to preempt Sprague vessels based on their own commercial demands so it is difficult to apportion a share of the dock space to Sprague. However, based on relative tank capacities, a pro rata share of the dock time for Sprague's asphalt 22%. In addition, asphalt business for this product is operational from April through November of each year, representing 75% of this remaining dock time.

Discharge Rate:		7,000 Bbls/hr
Vessel Size		90,000 Bbls
Operations between Vessels:		
Vessel Berthing Time - Inbound		2 hrs
Vessel Mooring, Inspection and PIC Conference		2 hrs
Hose Disconnection, Secure equipment		2 hrs
Total Time per Vessel Transfer		6 hrs
Vessel Discharge		12.9 hrs
Total Time per Vessel		18.9 hrs
Hours per Year		8,760 hrs
Pro rata allocation based on % Sprague capacity	22%	1,927 hrs
% of Year of Asphalt Operations	75%	1,445 hrs
# Vessel Transfers per Year		77 vessels

Asphalt:

Theoretical Annual Throughput	6,898,500 Bbls/yr
Theoretical Monthly Throughput	574,875 Bbls/mo
Theoretical Daily Throughput	18,900 Bbls/day

Rack - Loading Rack Capacity

Rack Assumptions:

Asphalt racks can discharge at a rate of 450 gallons per minute based on pumping capacities. Tank configurations allow only 5 racks to discharge simultaneously, which is included in the assumptions below. The terminal is open Monday through Friday from 11 PM - 4 PM and on Saturdays from 12 AM - 1 PM.

Asphalt

Maximum Discharge Rate per position:	450 Gals/min
Truck Capacity	7,500 Gals
Number of Truck Rack Positions	5
Truck Filling Operations	
Prepare for loading procedure at rack	10 minutes
Load product	17 minutes
Prepare transit	10 minutes
Total Time per Truck Fill (per rack)	0.6 hrs
Hours per Year	5,096 hrs
# Truck Fills per Year (all asphalt racks)	41,695 trucks
Theoretical Annual volume - Asphalt	7,445,455 Bbls/yr
Theoretical Monthly Throughput	620,455 Bbls/mo
Theoretical Daily Throughput	20,399 Bbls/day

Dock-Vessel Handling Capacity

Dock Assumptions:

The Providence Terminal is designed to conduct one vessel transfer at a time. Therefore, the available time associated with #6 oil and asphalt marine transfers is based on an allocation of products transferred across the dock. In addition to #6 oil and asphalt, the terminal receives other distillate products. As a share of total products, #6 oil comprises roughly 13% of the Providence Terminal's liquid business. This share of the theoretical dock capacity is allocated to #6 oil for liquid product transfers. The terminal's asphalt business is based on contract requirements for the exclusive third party who controls this distribution. In addition, the terminal handles road salt, which is conveyed at the dock. The contract volumes for salt are also accounted for and backed out of the available dock capacity below.

#6 Oil

Discharge Rate:	6,400 Bbls/hr
Vessel Size	70,000 Bbls
Operations between Vessels:	
Vessel Berthing Time - Inbound	2 hrs
Vessel Mooring, Inspection and PIC Conference	2 hrs
Hose Disconnection, Secure equipment	2 hrs
Subtotal Time between Vessels	6 hrs
Vessel Discharge	10.9 hrs
Total Time per Vessel Transfer	16.9 hrs
Hours per Year	8,760 hrs
Less Bulk Transfer Time (asphalt, salt)	1,749
Subtotal Hours for Liquid Product Transfer	7,011
% Share #6 oil Transfers	12.7% #6 Oil as % Total Throughput
#6 Oil - Allocation of Hours (% volume of Total)	888 hrs
Subtotal #6 Oil Vessels per year	52 vessels/yr
No. 6 Oil:	
Theoretical Annual Throughput	3,670,223 Bbls/yr
Theoretical Monthly Throughput	305,852 Bbls/mo
Theoretical Daily Throughput	10,055 Bbls/day

Asphalt

Discharge Rate:	3,800 Bbls/hr
Vessel Size	55,000 Bbls
Operations between Vessels:	
Vessel Berthing Time - Inbound	2 hrs
Vessel Mooring, Inspection and PIC Conference	2 hrs
Hose Disconnection, Secure equipment	2 hrs
Total Time per Vessel Transfer	6 hrs
Vessel Discharge	14 hrs
Total Time per Vessel	20 hrs
Hours per Year	8,760 hrs
Providence Material Handling Volumes (Exc Asphalt)	216
Subtotal Liquid Petroleum Dock Availability	8,544
% Share Asphalt Transfers	8.7% Asphalt as % Total Throughput
Asphalt - Allocation of Hours (Prior 5 years volume % of Total)	744 hrs
Subtotal Asphalt Vessels per year	36 vessels/yr
Asphalt:	
Theoretical Annual Throughput	1,998,060 Bbls/yr
Theoretical Monthly Throughput	166,505 Bbls/mo
Theoretical Daily Throughput	5,474 Bbls/day

Rack Loading Rack Capacity

Rack Assumptions:

The Providence residual fuel rack has one loading position for straight #6 oil and one for #4 oil. The #4 oil rack will not function without the blender, which utilizes 40% #2 oil with the #6 oil. The two rack can discharge simultaneously at a rate of 500 gallons per minute. The figures below assume there is 60% #6 oil in the second rack position. The terminal's hours of operations are Monday through Friday from 2 AM to 8 PM; Saturday 11 AM to 5 PM in the Summer (32 weeks) and 6 AM to 5 PM in the winter (20 weeks). The terminal is closed on Sundays.

#6 Oil

Maximum Discharge Rate per position:	500 Gals/min
Truck Capacity	8,500 Gals
Number of Truck Rack Positions	2
Truck Filling Operations	
Prepare for loading procedure at rack	10 minutes
Load product	17 minutes
Prepare transit	10 minutes
Total Time per Truck Fill (per rack)	0.6 hrs
Hours per Year	5,092 hrs
# Truck Fills per Year (both #6 oil and #4 oil racks)	16,515 trucks
Theoretical Annual volume - #6 Oil	2,673,792 Bbls/yr
Theoretical Monthly Throughput	222,816 Bbls/mo
Theoretical Daily Throughput	7,325 Bbls/day

Asphalt

Maximum Discharge Rate per position:	400 Gals/min
Truck Capacity	7,500 Gals
Number of Truck Rack Positions	1
Truck Filling Operations	
Prepare for loading procedure at rack	10 minutes
Load product	19 minutes
Prepare transit	10 minutes
Total Time per Truck Fill (per rack)	0.6 hrs
Hours per Year	5,092 hrs
# Truck Fills per Year	7,884 trucks
Theoretical Annual volume - Asphalt	1,407,926 Bbls/yr
Theoretical Monthly Throughput	117,327 Bbls/mo
Theoretical Daily Throughput	3,857 Bbls/day

Dock-Vessel Transfer Capacity

Dock Assumptions:

The Quincy Terminal is designed to conduct one vessel transfer at a time. Therefore, the available time associated with #6 oil marine transfers is based on an allocation of all products transferred across the dock. In addition to #6 oil, the terminal receives other distillate products. As a share of total products, #6 oil comprises roughly 9% of the Quincy Terminal's liquid business. This share of the theoretical dock capacity is allocated to #6 oil for liquid product transfers.

#6 Oil

Discharge Rate:	5,000 Bbls/hr
Vessel Size	78,000 Bbls
Operations between Vessels:	
Vessel Berthing Time - Inbound	2 hrs
Vessel Mooring, Inspection and PIC Conference	2 hrs
Hose Disconnection, Secure equipment	2 hrs
Total Time per Vessel Transfer	6 hrs
Vessel Discharge	15.6 hrs
Total Time per Vessel	21.6 hrs
Hours per Year	8,760 hrs
% Share #6 oil Transfers	9.2% #6 Oil as % Total Throughput
#6 Oil - Allocation of Hours (% volume of Total)	802 hrs
Subtotal #6 Oil Vessels per year	37 vessels/yr
Theoretical Annual Throughput - #6 Oil	2,896,712 Bbls/yr
Theoretical Monthly Throughput	241,393 Bbls/mo
Theoretical Daily Throughput	7,936 Bbls/day

Rack-Loading Rack Capacity

Rack Assumptions:

The Quincy #6 Oil rack can operate two positions simultaneously at 750 gallons per minute, which corresponds with the individual pump capacities of 400 gallons per minute and together at 750 gallons per minute. The terminal is open year round 24 hours per day.

#6 Oil

Maximum Discharge Rate for both position:	750 Gals/min
Truck Capacity	8,500 Gals
Truck Filling Operations	
Prepare for loading procedure at rack	10 minutes
Load product	11 minutes
Prepare transit	10 minutes
Total Time per Truck Fill (per rack)	0.5 hrs
Hours per Year	8,760 hrs
# Truck Fills per Year (both #6 oil racks)	16,774 trucks
Theoretical Annual volume - #6 Oil	3,394,833 Bbls/yr
Theoretical Monthly Throughput	282,903 Bbls/mo
Theoretical Daily Throughput	9,301 Bbls/day

Dock - Vessel Transfer Capacity

Dock Assumptions:

The River Road Terminal is designed to conduct one vessel transfer at a time. Therefore, the available time associated with #6 oil marine transfers is based on an allocation of products transferred across the dock. In addition to #6 oil, the terminal receives numerous other products at the marine dock including distillates, tallow, palm oil, fly ash, gypsum and salt. As a share of total products, #6 oil comprises roughly 4% of the River Road Terminal's liquid business. This share of the theoretical dock capacity is allocated to #6 oil for liquid product transfers. The contract volumes of the bulk products are also accounted for and backed out of the available dock capacity below.

Transfer Time Assumptions:

Discharge Rate:	4,500 Bbls/hr
Vessel Size	60,000 Bbls
Operations between Vessels:	
Vessel Berthing Time - Inbound	2 hrs
Vessel Mooring, Inspection and PIC Conference	2 hrs
Hose Disconnection, Secure equipment, Outbound	2 hrs
Tide Restrictions - Slack Tide Sail Only	3 hrs
Subtotal Time between Vessels	9 hrs
Vessel Discharge	13.33 hrs
Total Time per Vessel Transfer	22.33 hrs
Hours per Year	8,760 hrs
Less Bulk Transfer Time (gypsum, salt)	1,315 hrs
Subtotal Hours for Liquid Product Transfer	7,445
% Share #6 oil Transfers	4.2% #6 Oil as % Total Throughput
#6 Oil - Allocation of Hours (% volume of Total)	315 hrs
# Vessel Transfers per Year	14 vessels
No. 6 Oil:	
Theoretical Annual Throughput	847,436 Bbls/yr
Theoretical Monthly Throughput	70,620 Bbls/mo
Theoretical Daily Throughput	2,322 Bbls/day

Rack - Loading/Rack Capacity

Rack Assumptions:

River Road #6 Oil racks are designed discharge at a rate of 400 gallons per minute simultaneously. The #6 oil rack is open Monday through Friday 12 hours per day and 7 hours on Saturday. The rack is not open on Sundays

#6 Oil

Number of Loading Positions	2
Discharge Rate (averaged) to trucks:	400 Gals/min
Truck Capacity	8,000 Gals
Barge Filling Operations	
Prepare for loading procedure at rack	10 minutes
Load product	20 minutes
Prepare transit	10 minutes
Total Time per Truck Fill (per rack)	0.7 hrs
Hours per Year	3,484 hrs
# Truck Fills per Year	10,452 trucks
Theoretical Annual volume - #6 Oil	1,990,857 Bbls/yr
Theoretical Monthly Throughput	165,905 Bbls/mo
Theoretical Daily Throughput	5,454 Bbls/day

Dock Vessel Transfer Capacity

Dock Assumptions:

The South Portland Terminal is designed to conduct one vessel transfer at a time. Therefore, the available time associated with #6 oil marine transfers is based on an allocation of all products transferred across the dock. In addition to #6 oil, the terminal receives other distillate products as well as a number of products associated with material handling contracts, where Sprague only manages the transfers and does not take product ownership. As a share of total products, #6 oil comprises roughly 11.5% of the South Portland Terminal's liquid business. This share of the theoretical dock capacity is allocated to #6 oil for liquid product transfers. Asphalt dock throughput is calculated in a similar manner to #6 oil throughput in that material handling contract volume is backed out along with a pro rata allocation of other petroleum products to determine asphalt's share of dock time.

#6 Oil

Discharge Rate:	4,100 Bbls/hr
Vessel Size	92,190 Bbls
Operations between Vessels:	
Vessel Berthing Time - Inbound	2 hrs
Vessel Mooring, Inspection and PIC Conference	2 hrs
Hose Disconnection, Secure equipment	2 hrs
Subtotal Time between Vessels	6 hrs
Vessel Discharge	22.5 hrs
Total Time per Vessel Transfer	28.5 hrs
Hours per Year	8,760 hrs
Less Bulk Transfer Time (asphalt, av gas, clay)	845
Subtotal Hours for Liquid Product Transfer	7,915
% Share #6 oil Transfers	11.5% #6 Oil as % Total Throughput
#6 Oil - Allocation of Hours (% volume of Total)	910.23 hrs
Subtotal #6 Oil Vessels per year	32 vessels/yr
No. 6 Oil:	
Theoretical Annual Throughput	2,945,866 Bbls/yr
Theoretical Monthly Throughput	245,489 Bbls/mo
Theoretical Daily Throughput	8,071 Bbls/day

Asphalt

Discharge Rate:	3,100 Bbls/hr
Vessel Size	56,022 Bbls
Operations between Vessels:	
Vessel Berthing Time - Inbound	2 hrs
Vessel Mooring, Inspection and PIC Conference	2 hrs
Hose Disconnection, Secure equipment	2 hrs
Total Time per Vessel Transfer	6 hrs
Vessel Discharge	18 hrs
Total Time per Vessel	24 hrs
Hours per Year	8,760 hrs
South Portland Material Handling Volumes (Exc Asphalt)	749
Subtotal Liquid Petroleum Dock Availability	8,011
% Share Asphalt Transfers	6.2% Asphalt as % Total Throughput
Asphalt - Allocation of Hours (% volume of Total)	500 hrs
Subtotal Asphalt Vessels per year	21 vessels/yr
Asphalt:	
Theoretical Annual Throughput	1,163,325 Bbls/yr
Theoretical Monthly Throughput	96,944 Bbls/mo
Theoretical Daily Throughput	3,187 Bbls/day

VOEG and Red Hook Oil Company

Assumptions:

South Portland does not operate a #6 oil rack but discharges product into a barge that carries bunker fuel with parameters defined below. The asphalt rack has two loading positions that discharge simultaneously at the rates below. The asphalt rack is operational 32 weeks per year and runs Monday through Friday for 16 hours per day and on Saturday for 12 hours.

#6 Oil

Discharge Rate (averaged) to barge:	2,310 Gals/min
Barge Capacity	802,998 Gals
Barge Filling Operations	
Prepare at dock	60 minutes
Load product	348 minutes
Exit/Paperwork	60 minutes
Transit/Offload to Customers	696 minutes
Total Time per Barge Fill (per rack)	19.4 hrs/barge
Hours per Year	8,760 hrs
# Barge Fills per Year	452 barges
Theoretical Annual volume - #6 Oil	8,635,948 Bbls/yr
Theoretical Monthly Throughput	719,662 Bbls/mo
Theoretical Daily Throughput	23,660 Bbls/day

Asphalt

Maximum Discharge Rate per position:	318 Gals/min
Truck Capacity	7,700 Gals
Truck Filling Operations	
Prepare for loading procedure at rack	10 minutes
Load product	24 minutes
Prepare transit	10 minutes
Total Time per Truck Fill (per rack)	0.7 hrs
Hours per Year	3,904 hrs
# Truck Fills per Year (both asphalt racks)	10,587 trucks
Theoretical Annual volume - Asphalt	1,940,885 Bbls/yr
Theoretical Monthly Throughput	161,740 Bbls/mo
Theoretical Daily Throughput	5,317 Bbls/day

Attachment 2

Sprague Residual and Asphalt System Spending - Post 1990

Portsmouth, NH (Currently Closed)

Tank 3 (#6 Oil) Maintenance	Tank repainted, minor repairs conducted pursuant to API 653 inspection	\$	114,763	12/30/2004	N/A
Tank 1 (#6 Oil) Maintenance	Roof repainted, insulation repaired and drip edge added at roof seam, minor repairs conducted	\$	134,625	1/1/2005	N/A
Tank 2 (#6 Oil) Maintenance	Roof repainted, insulation repaired and drip edge added at roof seam, minor repairs conducted	\$	154,666	1/1/2005	N/A
Tank Maintenance - #6 Oil	Tank repairs conducted pursuant to API 653 inspections, bottoms epoxy coated	\$	366,632	11/7/2005	N/A

River Road - Newington, NH

Reinsulate Asphalt Tanks	Replaced insulation in Tanks 30001,30002,30003 and 30004 to restore heating efficiency	\$	268,131	6/30/1995	N/A
Asphalt System Piping	Piping changes were made to Tank 5000 and the four 30,000 bbl tanks to support asphalt requirements.	\$	229,521	7/21/2005	N/A
Asphalt Rack Maintenance	Maintenance and repairs were conducted on the asphalt loading rack. The aprons leading to and exiting the rack were also repaired to support SPCO requirements	\$	235,368	2/28/2007	N/A
Seacoast Resid Consolidation	Asphalt tanks were converted to residual product use. Tanks were opened and coils cleaned to restore heat efficiency.	\$	272,455	12/31/2009	N/A
Heated Dock Line Maintenance	Various repairs were conducted to the residual oil dockline to restore heat efficiency.	\$	191,412	12/31/2011	N/A
Replace #6 Oil Dock Line	A section of the dockline was replaced to extend service life.	\$	106,516	12/31/2011	N/A

Avery Lane - Newington, NH

Avery Lane Purchase	Avery Lane Terminal was purchased from Fuel Storage Corp (assets)	\$	5,070,255	11/16/1996	N/A
Avery Lane Purchase	Avery Lane Terminal was purchased from Fuel Storage Corp (land).	\$	1,108,000	11/15/1996	N/A
Tank 14 Repairs (Asphalt)	Repair and maintenance was conducted to Tank 14, including the bottom	\$	175,000	12/31/1997	N/A
Asphalt Vapor Odor Control	An asphalt odor control unit was installed to reduce localized odors.	\$	169,495	12/31/2003	N/A
Asphalt Expansion	Tank 4 and Tank 5 were converted from distillate to asphalt service.	\$	1,146,946	5/1/2004	N/A
Hot Oil Pumps	Hot oil thermal pumps were replaced. Old pumps had exceeded their useful service life.	\$	107,035	4/19/2005	N/A
Tank 8 Maintenance (Asphalt)	A replacement bottom was installed in Tank B	\$	702,917	6/30/2010	N/A
Tank 14 Maintenance (Asphalt)	Minor tank repairs were conducted, including some shell repair.	\$	119,270	3/31/2012	N/A

South Portland, ME

Asphalt Tank Purchase	Asphalt tanks and associated equipment was purchased from Koch	\$	250,000	6/1/1999	N/A
Asphalt System Maintenance	Maintenance to the piping, blend system and loading racks was conducted to facilitate customer demands.	\$	158,910	6/1/2000	N/A
Koch Asphalt Storage	Tank 9 was converted from distillate to asphalt storage (re-labeled 209), tank was insulated and coils installed	\$	407,387	7/31/2001	N/A
Asphalt Dock Line Replacement	A section of dockline was replaced to restore pumping efficiency	\$	112,336	10/7/2004	N/A
Asphalt Blender Piping	A blender was installed to improve blending capability and restore efficiency. Piping was reconfigured to meet current product movement requirements.	\$	903,201	9/22/2006	N/A
Hot Oil Heater Replacement	A new hot oil central heat plant was installed, replacing the prior segregated heaters, improving heat efficiency	\$	1,097,063	9/22/2006	N/A
Asphalt Storage Maintenance	Maintenance and repairs were conducted to the lower yard asphalt storage tanks, including replacement of insulation to restore heat efficiency.	\$	249,826	6/30/2007	N/A
Heavy Oil Terminal Conversion	Tank 7 was converted from distillate to residual oil use by insulating the tank, installing coils and a steam generator that was connected to the hot oil boilers. Piping changes were also made to support blending.	\$	3,291,181	9/30/2007	N/A
Tank 208 Bottom Replacement	A replacement bottom was installed in Tank 208.	\$	212,087	6/30/2011	N/A
Tank 208 Heating Coils	Replacement coils were installed in Tank 208 to restore heat efficiency	\$	189,038	7/31/2011	N/A

